Monthly Webex Tag-up, 15 January 2015

Agenda

1. Announcements and opportunities

2. Science Team Meeting

3. Data Archival and Data Products

4. Recent Data Analysis

DISCOVER-AQ

FRAPPÉ
July-August 2014

TRANSBOUNDARY OZONE POLLUTION CONFERENCE

at TENAYA LODGE at YOSEMITE NATIONAL PARK

Tuesday, March 31 - Thursday, April 2, 2015

About | Agenda | Registration | Lodging and Venue

Directions and Travel Information | Partners and Additional Information

This conference is co-sponsored by AQAST and the San Joaquin Valley Air Pollution Control District

Details are available at: http://www.valleyair.org/TOPC/

Specific questions can be addressed to Ian Faloona (icfaloona@ucdavis.edu)

CENTRAL QUESTIONS ADDRESSED

Based on the current body of evidence derived from observational studies, satellite retrievals and modeling efforts, how and under what circumstances is it possible to make reasonable estimates of TAO contributions to surface concentrations in the western U.S?

Given the goal of robust regulatory incorporation of TAO impacts in the near future, what additional research is needed to resolve existing scientific inference limitations?

WHO SHOULD ATTEND

Air quality scientists, air quality managers, policy professionals and others with an interest in a scientific assessment of how ozone from foreign sources is affecting the western United States.

BAO Access Cards

We failed to recover all of the BAO access cards that were distributed to users during the field intensive, but we would like to track down as many as we can.

If you still have a card, please return it to Dan Wolfe at NOAA.

You can contact him at daniel.wolfe@noaa.gov

Archival of AGU and AMS Presentations

We have typically archived presentations and posters from Science Team meetings, but we have not archived any conference presentations since the 2011 Fall AGU.

Archival would be voluntary.

Do we want password protection?

Please try to optimize file sizes

Send presentations to Ali Aknan (ali.a.aknan@nasa.gov)

A message about natural gas data from Daniel Bon, CDPHE

Hi All,

I just received this spreadsheet from Xcel Energy showing the composition information for delivery/sales gas to residential customers in Colorado. I thought it might be useful to you. The information is public and can be shared and referenced freely. Xcel is the largest supplier of gas in Colorado, but not the only one. It should provide a upper constraint for methane emissions from sources as is represents end user delivered gas. We would expect methane mole ratios to be much lower at production sites.

Daniel

We will put this information on the data archive under the "Ground-Other" category.

Science Team Meeting Update

We would like to start collecting your working titles and your preferences for talks versus posters

Please send this information to Mary Kleb (Mary.M.Kleb@nasa.gov)

We will use this information to begin developing the agenda for the meeting.

Science Team Meeting Logistics (no new information)

4-8 May 2015 at NCAR Center Green, Boulder

If you have not already RSVPed, please do so ASAP: http://goo.gl/forms/Vl0sKZBx07

Lodging will be scarce, so please make your arrangements as soon as possible. These instructions are summarized from the email recently sent by Mary Kleb.

Science Systems and Applications Room Block **(only reserve by phone or using the link below)**
Renaissance Boulder Flatiron Hotel
500 Flatiron Boulevard, Broomfield, Colorado 80021
Phone: 303-464-8400; Fax: 303-438-6699
http://www.marriott.com/meeting-event-hotels/group-corporate-travel/groupCorp.mi?resLinkData=Science%20Systems%20and%20Applications%20Room%20Block%5Edenir%60ssassaa%60114.00%60USD%60false%605/3/15%605/8/15%604/3/15&app=resvlink&stop_mobi=yes/

Non-government attendees: Book in the room block (for both FRAPPÉ and DISCOVER-AQ teams)

Government attendees: Please secure a room at government-rate **OUTSIDE** the room block. Per diem is currently available at the Holiday Inn Express and Hampton Inn in Longmont. Use the hotel's online reservation system.

Anyone willing to share a 2-bedroom suite can do so at TownePlace Suites – Broomfield. You must arrive and depart the same day and the average nightly rate cannot exceed $114/person. Use the hotel's online reservation system.

Data DOI for DISCOVER-AQ

The DOI (Digital Object Identifier) has now been approved for use.

10.5067/Aircraft/DISCOVER-AQ/Aerosol-TraceGas

Allows for data discovery through the DOI, which is linked to a landing page at the Langley ASDC.

Allows data use to be tracked directly through citations.

Please use this DOI in all future publications. We are still working with journals on methods to put this in the reference section, but you also have the option to cite the data in the text or acknowledgements.

Final Data Status for Colorado

The deadline for archival of final data has passed, and submissions are still far behind with DISCOVER-AQ lagging FRAPPE.

Given the holidays, AGU, and other requirements, we have allowed for some leeway in obtaining final data.

The official pestering period will now commence, so please consider contacting Gao Chen with your plans for submission before he has to contact you. We are hopeful that the archive can be complete by the end of January.

Please avoid leaving for other deployments before getting your data submitted.

Further delays also impact the timeliness of data products (e.g., merges, binned profiles, etc.) that are important for analyses in preparation for the Science Team meeting.

DISCOVER-AQ Data Transfer to ASDC – Documentation –

- Definition: instrument description, primary instrument output data (i.e., raw data) and ancillary data
  - **Instrument description:**
    - a write-up focused on the details or modifications specific to the instrument operation and data revision records during this deployment
    - a reference of peer-reviewed publication describing: the measurement principle, instrument description, calibration procedures and standards (if applicable), data processing procedure (including software if necessary), data validation (if applicable), and uncertainties/detection limits.
- Goal: to maintain data reprocessing capability and transparency of the data processing – required by NASA data policy
- The program scientist (Maring), PI (Crawford), project scientist (Pickering), and PM (Kleb), in consultation with the Co-I and an assigned representative from LaRC ASDC (Lindsay Parker), will determine the appropriate documentation requirements for each instrument on a case-by-case basis
- Documentation files are available **by request only**

DISCOVER-AQ Data Transfer to ASDC – Documentation –

- Documentation file naming convention:

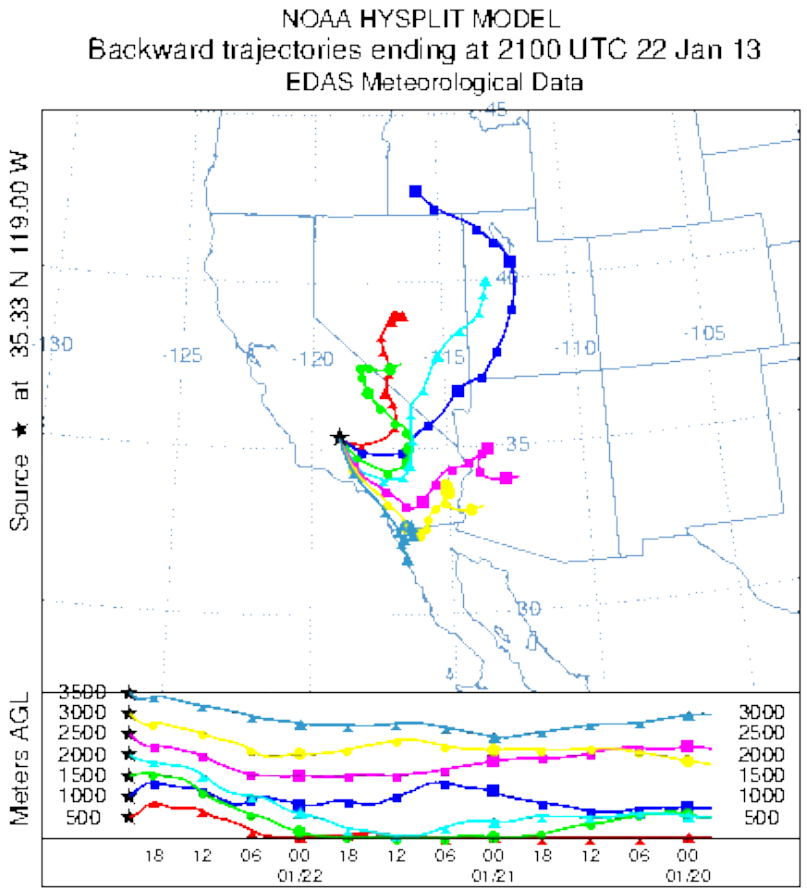
  DISCOVERAQ_PILastName_Instrument… (date, volume, etc)

  - ICARTT format is not required for documentation files
  - Recommendation: If possible, place all files within a single (or minimal number) of zip files, which can be named according to the convention; thus bundling original files without requiring filenames to be altered
  - Temporary repository will be setup for documentation files soon
- Target Due date: April 1, 2015

Documentation Transfer Procedure

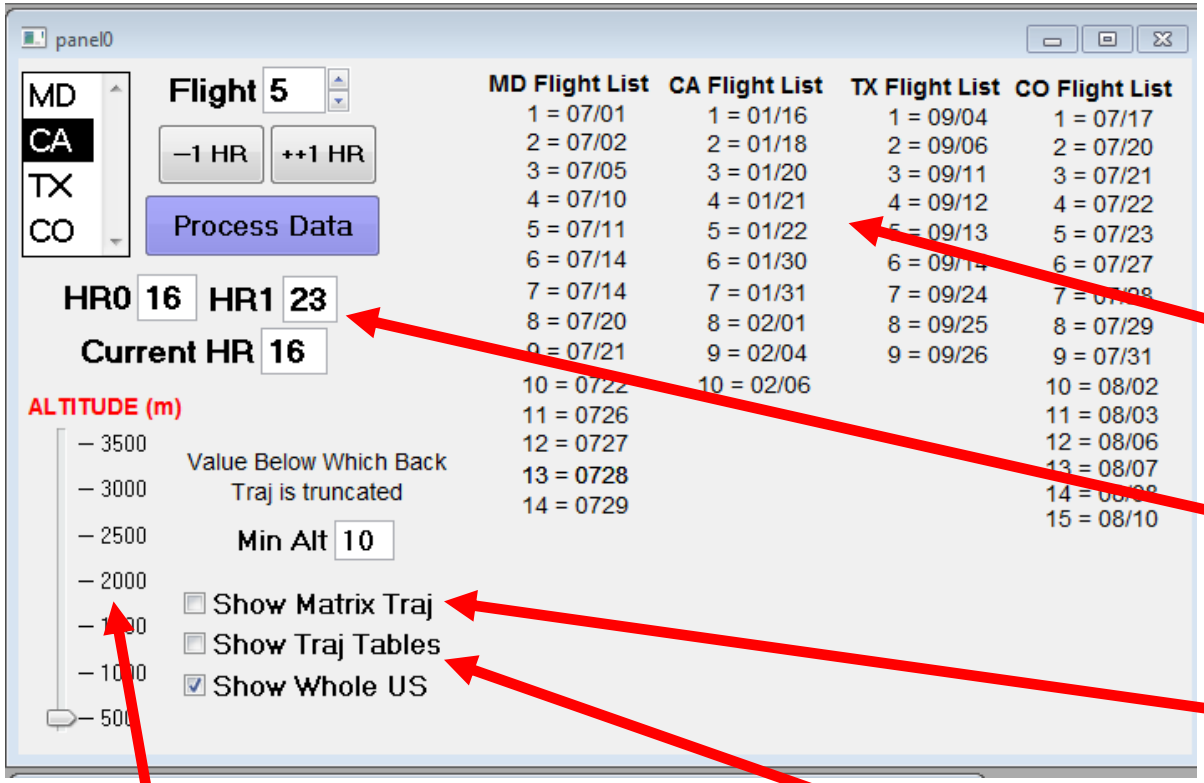
- ftp xfr140 (user = aircraft)
- type in user aircraft's password:
  Contact Gao for the password
- cd ingest/FieldCampaigns
- put your data (use binary mode)

Trajectory Analysis Updates



- 3-day HYSPLIT back trajectories have been added into the archive for the CA, TX, and CO campaigns
- Same format as the MD campaign that is already in the archive
- GIF file for each spiral profile at 7 altitudes (500 – 3500 m AGL)
- Single TXT file (in CSV format) for each profile site to cover the whole time period
- Readme files to explain the variables
- Look under the model/traj tab in the archive

New Trajectory Visualization Tool



- *Requires IGOR Pro by Wavemetrics*

- Works for all 4 campaigns

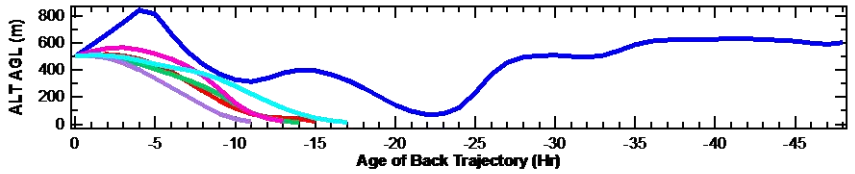
- Scroll through the entire flight duration

- See multiple trajectories in the grid

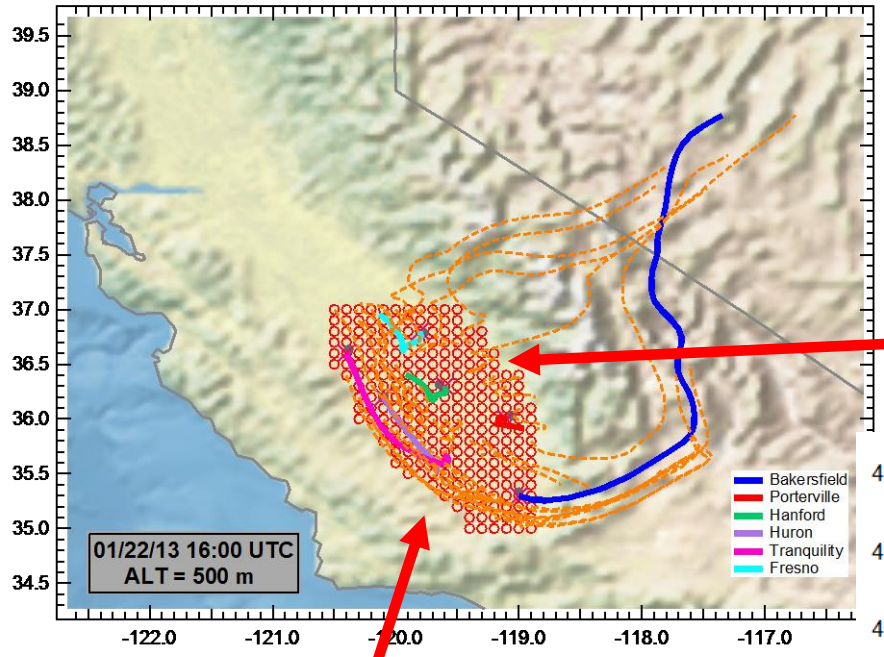
- Display the data in a table

- Vary the altitude you want to see

Based on HYSPLIT's matrix function, creates a grid around the study area



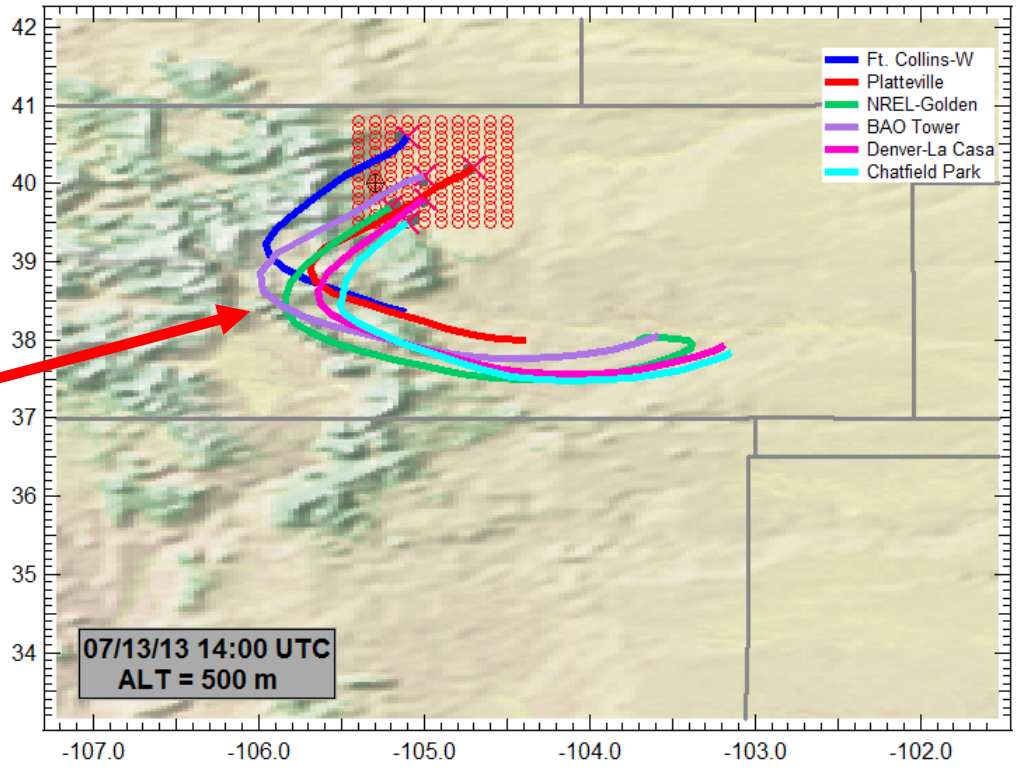
Altitude time series from the last 48 hours (cuts off when it hits the ground)



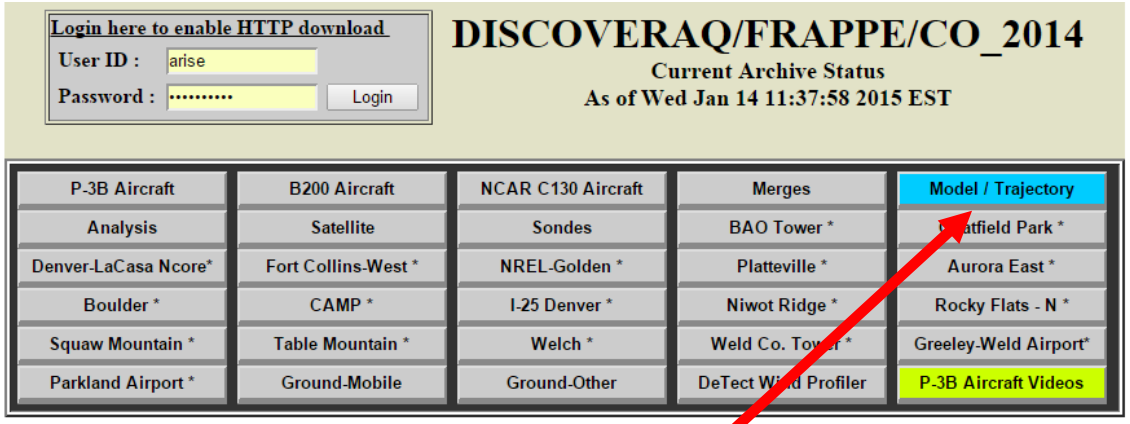
A grid was set up around each study area

Can view the gridded trajectories

…. Or not



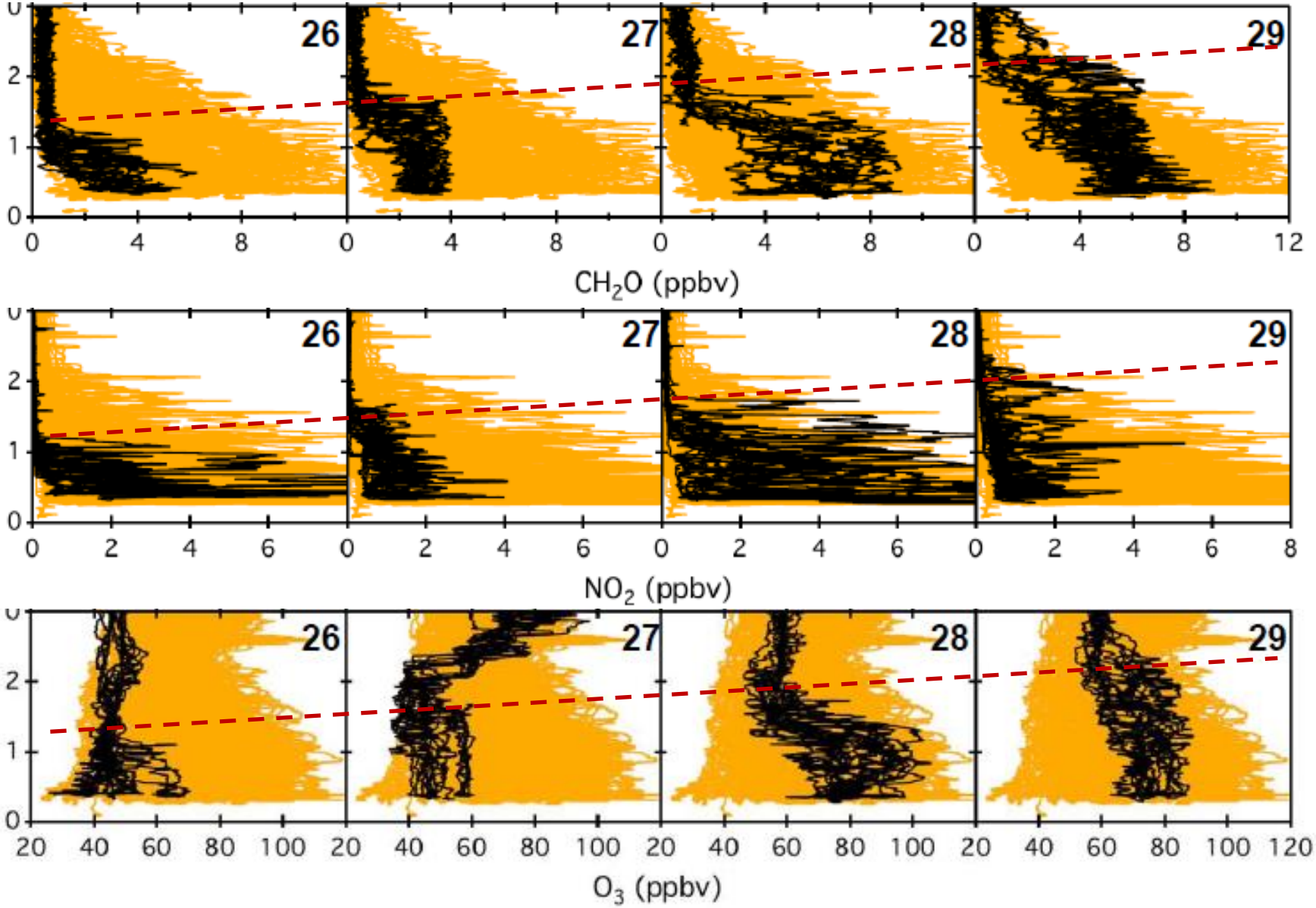
To use program



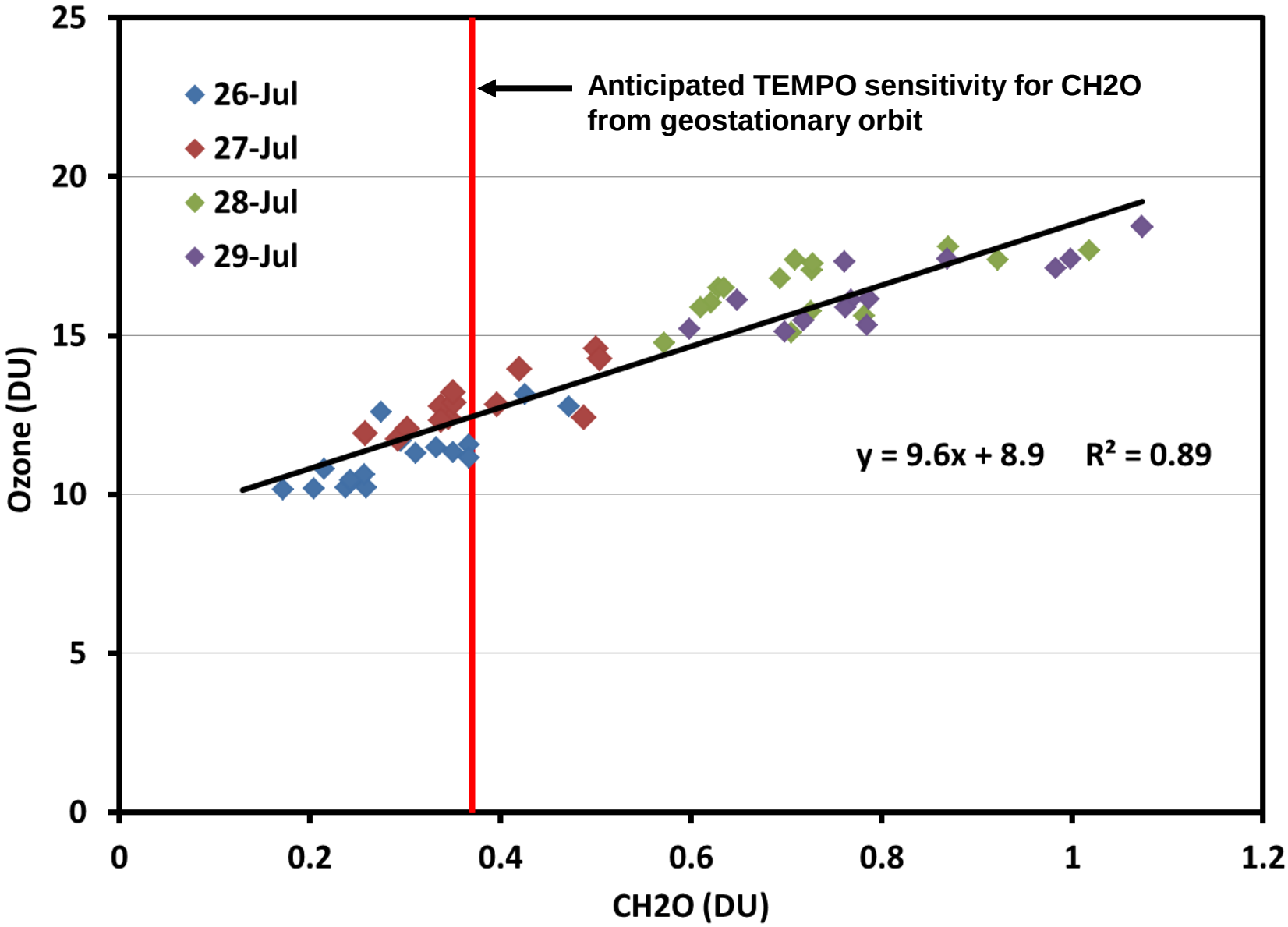
- Requires IGOR Pro (www.wavemetrics.com, *sorry, it's not freeware*)
- Need to download 5 zipped files from the archive
  1. **DAQ_Matrix_Viewer_File_01**= IGOR Pro program + readme file
  2. **DAQ_Matrix_Viewer_File_02** = DAQ-CA raw trajectories
  3. **DAQ_Matrix_Viewer_File_03** = DAQ-CO raw trajectories
  4. **DAQ_Matrix_Viewer_File_04** = DAQ-MD raw trajectories
  5. **DAQ_Matrix_Viewer_File_05** = DAQ-TX raw trajectories
- *When unzipped, requires about 3.25 GB of disk space*
- There is a readme file to follow that shows where to setup the files on your computer
- The program looks for specific directories, so if you want to put the data in another directory, you will have to modify the code

DISCOVER-AQ

P-3B Profiles, 26-29 July-Maryland

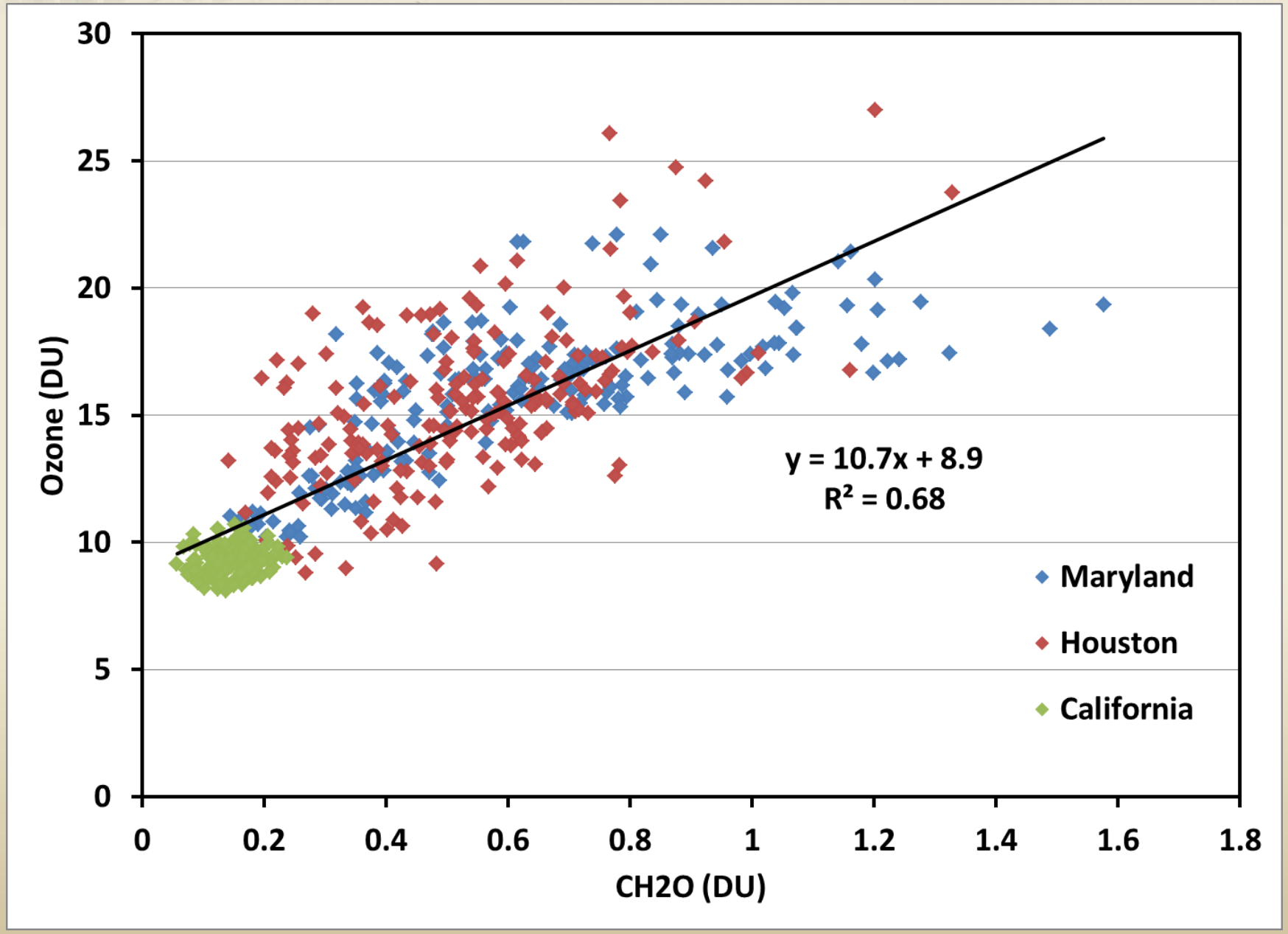


P-3B Integrated Column Densities

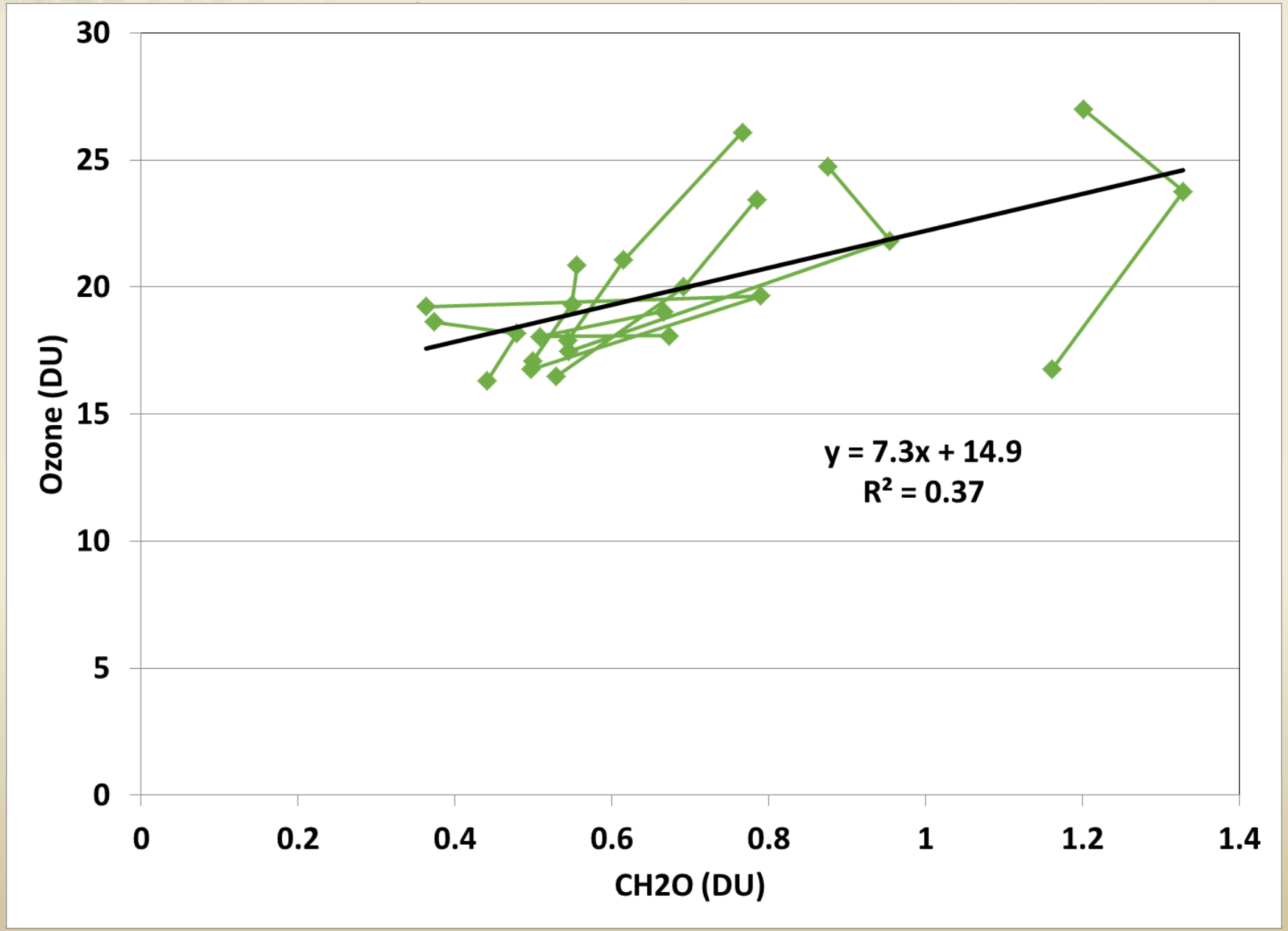


DISCOVER-AQ

P-3B Integrated Column Densities



Houston, 25 September



Houston, 26 September